

In the Claims

Please cancel claims 14-27 without prejudice to further prosecution in a divisional, continuation, continuation-in-part, or other application.

1. (Original) A power source comprising:
at least one non-radioactive power source; and
at least one radioactive power source in electrical communication with said at least one non-radioactive power source, said at least one radioactive power source comprising:
at least one junction of a first material and a second material, wherein said first material has a first electrochemical potential and said second material has a second electrochemical potential, wherein said first and second electrochemical potentials are different; and
at least one radiation source.
2. (Original) The power source of claim 1, wherein said at least one radioactive power source maintains a charge associated with said at least one non-radioactive power source.
3. (Original) The power source of claim 1, further comprising a power conditioning circuit interposed between and in electrical communication with said at least one non-radioactive power source and said at least one radioactive power source.
4. (Original) The power source of claim 3, said power conditioning circuit further comprising a power management circuit.
5. (Original) The power source of claim 1, further comprising a pair of power source outputs and a power conditioning circuit, said power conditioning circuit interposed between and in electrical communication with said at least one non-radioactive power source and said pair of power source outputs.
6. (Original) The power source of claim 1, wherein said at least one junction is selected from the group consisting of homo-junctions and hetero-junctions.

7. (Original) The power source of claim 1, wherein said at least one junction is a metal-oxide-semiconductor structure.

8. (Original) The power source of claim 1, wherein said at least one radioactive power source is a beta cell.

9. (Original) The power source of claim 8, wherein said beta cell is comprised of an icosahedral boride semiconductor.

10. (Original) The power source of claim 1, wherein said at least one non-radioactive power source is selected from the group consisting of zinc-carbon batteries, zinc-chloride batteries, magnesium batteries, aluminum batteries, alkaline-manganese dioxide batteries, mercuric oxide batteries, silver oxide batteries, zinc-air batteries, lithium batteries, solid-electrolyte batteries, magnesium water-activated batteries, zinc/silver oxide batteries, thermal batteries, lead-acid batteries, iron electrode batteries, nickel-cadmium batteries, nickel-metal hydride batteries, nickel-zinc batteries, nickel-hydrogen batteries, silver oxide batteries, rechargeable lithium and lithium-ion batteries, rechargeable zinc/alkaline/manganese dioxide batteries, metal-air batteries, zinc/bromine batteries, sodium-beta batteries and lithium/iron sulfide batteries.

11. (Original) The power source of claim 1, wherein said at least one non-radioactive power source is a capacitor selected from the group consisting of metal-oxide-semiconductor (MOS) capacitors, metal-dielectric-metal capacitors, and semiconductor-dielectric-semiconductor capacitors.

12. (Original) The power source of claim 1, wherein said at least one non-radioactive power source is a fuel cell.

13. (Original) The power source of claim 12, wherein said fuel cell is selected from the group consisting of hydrogen-oxygen fuel cells, metal hydride fuel cells, chemical hydride fuel cells, and methanol fuel cells.

14-27 (Canceled)